



ASSOCIATION BETWEEN SOCIAL NETWORKING ADDICTION AND SLEEP DISTURBANCE AMONG ADOLESCENTS

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ABSTRACT

This study aimed to examine the correlation between social networking addiction and sleep disturbance among adolescents. the widespread adoption of social networking sites among adolescents has raised concerns about its impact on their physical and mental health. We used a correlational research design Sleep disturbance was a common problem among adolescents, affecting up to 75% of this age group sleep disturbance can lead to a range of negative outcomes, including decreased academic performance increased risk of mental health problems and impaired cognitive function This study investigated the association between social networking addiction and sleep disturbance among adolescents aged 11 to 17.a sample of 60 adolescents completed standardized questionnaires assessing social networking addiction and sleep disturbance Data was analysed using Excel Sheet. The results showed the mean score (12.54) indicated moderate sleep disturbance and the mean score (81.98) suggested a moderate to high level of social networking addiction. the findings suggest that excessive social networking can interfere with sleep patterns, potentially leading to sleep- related problems and other negative outcomes and also contribute to our understanding of the complex relationships between social networking addiction and sleep disturbance and adolescent health.

KEYWORDS: Social Networking Addiction, Sleep Disturbance, Adolescents

INTRODUCTION

The history of social networking can be traced back to the late 1970s and early 1980, when the first SNSs six degrees emerged as a result of the idea those individuals are linked via six degrees of separation and are conceived as “the small world problem” in which society is viewed as becoming increasingly interconnected. In 1994 Facebook was launched as an online community for students at Harvard University and has since become the world’s most popular SNS. In the same year, 22.9% of the world population used Facebook. In 2015, the average social media user spent 1.7 h per day on social networking sites. Social networking and social media were not same. Social networking was eclectic. Facebook addiction was only one example of SNS addiction. Fear of missing out may be part of SNS addiction. Nomophobia may be part of SNS addiction. According to Danah M. Boyd and Nicole B. Ellison social network sites as web- based services that allow individuals to construct a public or semi-public profile within a bounded system. The nature and nomenclature of these connections may vary from site to site. Classmates.com was a specialized social network for users who already had a connection. Bolt was designed for 15-20 year old to use for email, voice mail, voice chat, message boards and instant messaging Friendster launched in 2002 to help friends of friends meet. MySpace attracted the majority of media attention in the U.S and abroad. Many new social networking sites were launched from 2003 onward. Some sites focused on business people, such as LinkedIn, visible path and xing. Social networking sites proliferated and grew in popularity world-wide social networking addiction is a behavioural addiction that occurs

when someone is so dependent on social networking sites that it disrupts their life. The concept Adolescence is derived from the Latin word ‘adolescere’ which means growing towards maturity. Adolescence is the transitional stage of development between childhood and adulthood typically occurring between the ages of 10 and 19. The World Health Organization (WHO) defines adolescents as individuals between 10 and 19 years old, while the United Nations Convention on the Rights of the child defines them as those between 10 and 18 years old. Social networking has become an integral part of daily life today and will continue to be so. Most researchers have focused on adolescents and emerging adults, prioritizing this age group for several reasons. The primary reason is that these groups are more engaged with technology and social networking sites making them an indispensable part of their daily lives. The widespread adaptation of social networking sites (SNSs) among adolescents has transformed the way they interact, communicate and spend their leisure time. However, excessive social networking has been linked to various negative consequences, including sleep disturbance. Adolescence is a critical period for physical, emotional and cognitive development and sleep plays a vital role in these processes. There have been different researchers focusing different aspects of social networking and its effects on human behaviours. One popular topic is the association between social media and psychological factors, such as depression and anxiety, loneliness and so on. Notably emerging adults are among the most researched groups because of their psychological and developmental characteristics. A recent survey in Turkey reported that approximately 91% of people aged 16- 24 years were internet users and according to

internet usage purposes, social networks came first with 84.1%. However, some studies showed that social media is not always related to problematic issues. It is more about how people use it.

Social Networking Addiction “social networking addiction is a form of behavioural addiction that involves excessive and compulsive use of social networking sites, despite negative consequences or harm to individual” (Kuss and Griffiths 2011). Social networking has revolutionized the way we communicate, interact and share information. Platforms like Facebook, Instagram, Twitter, and Snapchat have become integral to modern life, with billions of users worldwide. However, excessive social networking use has raised concerns about its impact on mental health, relationships, and daily functioning. Social media is a big part of the lives of many adolescents. 90% of adolescents ages 13-17 have used social networking. Adolescents with lower life satisfaction consistently use social networking more. Social networking addiction leads to many causes of sleep disturbance. Social networking addiction affects adolescent academic performance badly. Social networking negatively affects adolescent sleep.

Sleep Disturbance

“Sleep disturbance is a disruption in the normal sleep-wake cycle, leading to inadequate quality or quantity of sleep.” (American Academy of Sleep Medicine 2014)

Sleep is a fundamental aspect of human life, playing a critical role in physical and mental health. However, sleep disturbance, characterized by difficulties initiating or maintaining sleep, affects millions worldwide. The National Sleep Foundation estimates that 30-40% of the general population experiences sleep disturbances, with severe consequences on daily functioning, quality of life, and overall wellbeing. Adolescents who don't get enough sleep don't do as well in school or sports. Sleep loss and insufficient sleep can impact neurological development, an area with risk factors for a range of health issues among adolescents. Sleep plays a critical role in adolescent mental health, and sleep disruption can lead to increased depressive symptoms and suicide risk in adolescents. In adolescents, sleep helps support growth and development.

Adolescents

“Adolescence is the period of life between childhood and adulthood, roughly spanning the ages of 12 to 18” (Erikson 1963)

“Adolescence is the period of life between 10 and 19 years of age” (WHO 2018)

Adolescence, spanning ages 11-17, is a critical development phase marked by significant physical, emotional, social, and cognitive changes. During this time, individuals form identities, develop relationships, and lay the foundation for future success. However, adolescents also face unique challenges, including rapid physical changes, emotional turmoil, peer pressure, academic stress, and digital influences. Sleep and sleep disturbance have a significant relationship. Sleep disturbances are common among adolescents, affecting 10

-40% of this age group.

Rationale of the study

Due to the increasing globalization, the world has reached a click away at the same time the development of technology is seen to be happening rapidly. Social media is a tool through which we can meet with our family friends and business colleagues on online platforms for work, but the benefits of this social media are as great as the disadvantages and negative effects are seen. Today the level of social networking addiction among adolescents is increasing. Addiction to social networking sites in this age group has been associated with decreased academic performance in adolescence, increased risk of depression, anxiety, and mental health problems. Adolescents' brains are still developing, making them more susceptible to addiction. Social networking is a key aspect of adolescent socialization, and adolescents may struggle with self-control and impulse management. Social networking addiction can lead to sleep problems in adolescents. The blue light emitted from electronic screens can stimulate the brain, making it harder to fall asleep. This is because blue light is most active in the part of the brain that controls our sleep cycle. Using electronic devices before bed can disrupt circadian rhythms, which are the internal rhythms that control sleep-wake cycles. The study was decided to teach adolescents about the importance of sleep and how dangerous addiction is.

Objective

1. To examine the correlation between social networking addiction and sleep disturbance among adolescents.

Hypothesis

1. There will be a positive correlation between social networking addiction and sleep disturbance among adolescents.

REVIEW OF LITERATURE

Daria J. Kuss (2017), online social networking sites (SNSs) have gained increasing popularity in the last decade, with individuals engaging in SNSs to connect with others who share similar interests. The perceived need to be online may result in compulsive use of SNSs, which in extreme cases may result in symptoms and consequences traditionally associated with substance-related addictions. In order to present new insights into online social networking and addiction in this paper, 10 lessons learned concerning online social networking sites and addiction based on the insights derived from recent empirical research will be presented. These are (1) social networking and social media use are not the same; (2) social networking is eclectic; (3) social networking is a way of being; (4) individuals can become addicted to using social networking sites; (5) Facebook addiction is only one example of SNS addiction; (6) fear of missing out may be part of SNS addiction. These are discussed in turn. Recommendations for research and clinical applications are provided.

Mohammed A. Abdalqader (2018), In Malaysia, the increasing effect of insomnia was observed to be a common phenomenon. The objective of this study was to measure the prevalence of insomnia and to study its association with usage of social media.

and sociodemographic factors among university students. A cross-sectional based questionnaire was conducted among 445 students aged 18-30 years old in a private university in Selangor from July to August.

Azar Pirdehghan, Edris Khezmeband Soheila Panahi (2021) The research suggested that the use of social networking sites especially before going to bed at night leads to sleep disturbance.

Abdulaziz M. Al- Garni (2023), In a cross-sectional study of adolescents (15-20) in Asir region, Saudi Arabia, when examining sleep quality 34.7% of students were poor sleepers and moderate and severe depression symptoms were significantly associated with hours spent on social networking sites.

Abualziz M Al- Garni et al. Int J Gen Med. (2024) Excessive use of SNS in Baghdad has been associated with poor sleep, physical activity, poor nutrition, obesity, and overall health related quality of life. Among middle school students who owned a phone, they used the internet more than 150 hours per month and slept. In the morning unexplained fatigue and nightmares complaint was made.

NNR Masthi S Purthvi, Phaneendra Mallekavu (2017) A study in Bengaluru found that overuse of social networking among private school students observed psychological changes like anger, loneliness and frustration and behavioural changes like sleep disturbance and neglect of personal hygiene.

Lisa Barman, Dipta Kanti Mukhopadhyay, Gautam Kumar Bandyopadhyay (2018), A study in Kolkata suggests that use of social networking sites leads to anxiety and depression among undergraduate medical college students.

Mehmet Akif Karaman (2019), a study of a sample of 261 Turkish college students tested the relationship between social media use and depression and sleep disturbance and global health. The result indicated that male college students had more social networking addictions than females.

METHODOLOGY

Sample: In the present study convenience sampling technique was used. 60 participants were selected from high school areas in Phaltan such as Mudhoji High School. All these participants age group ranged from 16 to 17 years old, sample of middle adolescents and late adolescents were used in this study the sample will be taken from Phaltan, Satara Districts of Maharashtra State.

Variables

1. Social Networking Addiction
2. Sleep Disturbance

Operational Definitions

Social networking addiction: It is a composite score obtained by adolescents as measured social networking addiction by using the social networking addiction scale developed by Md Ghazi Shahnawaz Dr Nivedita Ganguli and Manchong Limlunthang Zou.

Sleep disturbance: It is composite score obtained by adolescents as measured poor sleep by using the sleep disturbance child age 11-17 (PROMIS- Sleep Disturbance- short form) developed by PROMIS Health Organization and PROMIS cooperative Group (DSM 5TR Level 1 cross cutting questionnaire)

Adolescents: Adolescence who are generally emotionally fluctuated curiosity of the world around them and focused on their peer relationships exploring self- identity and preparing for adulthood. The children between ages 11- 17 are called adolescents. Here, adolescents mean the students studying in 11th to 12th grade.

Research Design

In this study correlation research design method was used. Through these two tests social networking addiction and sleep disturbance of adolescents will be studied.

Tools for data collection

Social Networking Addiction Scale: constructed by Md Ghazi Shahnawaz Dr. Nivedita Ganguli and Manchong Limlunthang Zou. There are 32 items in this test and it has 5 alternatives like strongly agree, agree, undecided, disagree and strongly disagree. Some of the items are positive and some are negative. Impulsivity is the most important factor in this test for what type of addiction. This test is conducted to control the use of this component of the social networking addiction scale. The use of the internet is the cause of unwanted thoughts in the youth. Another factor in this is that some beliefs are use of the internet creates a sense of independence. Negative impact is the third factor that plays an important role in substance abuse. The scale has different reliability for each component Cronbach's alpha shows that the three components and it is evidence that the three components have good reliability while the three components show varying reliability .94 is the overall reliability coefficient for social networking addiction scale. The scoring of this scale is based on a simple sum of which 5,4,3,2,1 marks are to be given for negative items and 1,2,3,4,5 marks are to be given for positive items.

Sleep Disturbance: Developed by PROMIS Health Organization and PROMIS Cooperative Group. This questionnaire is taken from DSM V TR. There are 8 items in this cross-cutting questionnaire. Each item on the measure is rated on a 5- point scale (1 = Never; 2 = rarely; 3 = sometimes; 4 = Often and 5 = always) with age range in score from 8 to 40 with higher scores indicating greater severity of sleep disturbance. The raw scores on the 8 items should be summed to obtain a total raw score.

Procedure for data collection

Data were collected by the researcher in a classroom environment administering the scale to the adolescents who accepted to participate in the study. Filling in each scale took about 20 to 30 minutes.

Procedure for data analysis

In the present study data were analysed with the help of manual of the social networking addiction scale and the manual of

the sleep disturbance questionnaire. The nature of the study was found the association between two groups. Hence the researcher was using descriptive and statistical tools like Mean, SD, Pearson product moment correlation were used.

Result Table

Sr. no	Interpretations	Mean	SD	r
1	Moderate to high	81.98	8.52	0.99
2	Moderate	12.54	4.65	

Results

Sleep Disturbance

Mean score (12.54) indicates moderate sleep disturbance. SD (4.65) suggests variability in sleep quality among adolescents.

Social Networking Addiction

Mean score (81.98) suggests moderate to high level of social networking addiction. SD (8.52) indicates variability addiction levels.

SNAS	SLEEP DISTURBANCE	X-M=x	x ²	y-m=y	y ²	XY
65	8	-16.98	288.32	-4.54	20.6116	520
82	14	0.02	0.0004	1.46	2.1316	1148
70	11	-11.98	143.5204	-1.54	2.3716	770
95	8	13.02	169.5204	-4.54	20.6116	760
70	8	-11.98	143.5204	-4.54	20.6116	560
73	20	-8.98	80.6404	7.46	55.6516	1460
75	8	-6.98	48.7204	-4.54	20.6116	600
68	8	-13.98	195.4404	-4.54	20.6116	544
102	8	20.02	400.8004	-4.54	20.6116	816
88	8	6.02	36.2404	-4.54	20.6116	704
83	8	1.02	1.0404	-4.54	20.6116	664
90	12	8.02	64.3204	-0.54	0.2916	1080
73	16	-8.98	80.6404	3.46	11.9716	1168
78	10	3.98	15.8404	-2.54	6.4516	780
95	12	13.02	169.5204	-0.54	0.2916	1140
86	17	4.02	16.1604	4.46	19.8916	1462
91	17	9.02	81.3604	4.46	19.8916	1547
80	15	-1.98	3.9204	2.46	6.0516	1200
80	21	-1.98	3.9204	8.46	71.5716	1680
84	14	2.02	4.0804	1.46	2.1316	1176
86	9	4.02	16.1604	-3.54	12.5316	774
83	16	1.02	1.0404	3.46	11.9716	1328
87	22	5.02	25.2004	9.46	89.4916	1914
83	18.37	1.02	1.0404	5.83	33.9889	1524.71
69	8	-12.98	168.4804	-4.54	20.6116	552
82	11	0.02	0.0004	-1.54	2.3716	552
71	18	-10.98	120.5604	5.46	29.8116	1278
77	15	-4.98	24.8004	2.46	6.0516	1155
78	18	-3.98	15.8404	5.46	29.8116	1404
82	8	0.02	0.0004	-4.54	20.6116	656
74	16	-7.98	63.6804	3.46	11.9716	1184

76	18	-5.98	35.7604	5.46	29.8116	1368
102	11	20.02	400.8004	-1.54	2.3716	1122
87	8	5.02	25.2004	-4.54	20.6116	696
84	15	2.02	4.0804	2.46	6.0516	1260
76	25	-5.98	35.7604	12.46	155.2516	1900
70	8	-11.98	143.5204	-4.54	20.6116	560
72	9	-9.98	99.6004	-3.54	12.5316	648
80	22	-1.98	3.9204	9.46	89.4916	1760
82	8	0.02	0.0004	-4.54	20.6116	656
107	13	25.02	626.0004	0.46	0.2116	1391
85	8	3.02	9.1204	-4.54	20.6116	680
74	8	-7.98	63.6804	-4.54	20.6116	592
90	12	8.02	64.3204	-0.54	0.2916	1080
78	8	-3.98	15.8404	-4.54	20.6116	624
88	14	6.02	36.2404	1.46	2.1316	1232
83	18	1.02	1.0404	5.46	29.8116	1494
78	8	-3.98	15.8404	-4.54	20.6116	624
77	8	-4.98	24.8004	-4.54	20.6116	616
90	14	8.02	64.3204	1.46	2.1316	1260
84	8	2.02	4.0804	-4.54	20.6116	672
90	8	8.02	64.3204	-4.54	20.6116	720
87	12	5.02	25.2004	-0.54	0.2916	1044
80	18	-1.98	3.9204	5.46	29.8116	1440
80	11.37	-1.98	3.9204	-1.17	1.3689	909.6
80	8	-1.98	3.9204	-4.54	20.6116	640
85	10	3.02	9.1204	-2.54	6.4516	850
74	9	-7.98	63.6804	-3.54	12.5316	666
91	11	9.02	81.3604	-1.54	2.3716	1001
89	20	7.02	49.2804	7.46	55.6516	1780
X=491.9	Y=752.74	8.16	X ² =4362.984	0.34	Y ² =1298.111	XY=61386.31
					r=0.99871	

DISCUSSION

Social networking addiction referred to the excessive and compulsive use of social networking sites leading to negative consequences such as sleep disturbance. This study investigated the association between social networking addiction and sleep disturbance among adolescents, while earlier studies have explored poor sleep, physical activity, poor nutrition obesity and overall health related quality of life. Earlier researchers discovered the relationship between social media use, depression sleep disturbance and global health. The present study found excessive use of social networking sites leads to social networking addiction and sleep disturbance. Risk factors in this study as measured by the social networking addiction scale and sleep disturbance test. The present study suggests that the use of social networking sites has led to negative outcomes such as sleep disturbance. Although Mehmet Akif Karaman (2019) found that male college students had more social networking addiction than females but the investigator

findings suggest that in the present study investigator did not find gender difference, this study only found the association between social networking addiction and sleep disturbance among adolescents. The findings of this study were consistent with previous research, which suggested that excessive social media use could lead to sleep disturbance, including insomnia, daytime fatigue and other sleep related problems. This study explored the association between social networking addiction and sleep disturbance among adolescents, however long-term studies needed to sleep quality cycle. In this present study demonstrates that the blue light of digital gadgets affects the sleep schedule of adolescents. The social networking addiction scale was used to assess the level of social networking addiction among adolescents. The sleep disturbance scale was employed to evaluate the level of sleep disturbance among adolescents. Mean score (12.54) indicates moderate sleep disturbance. SD (4.65) suggests variability in sleep quality among adolescents. Mean score (81.98) suggests moderate to high level of social networking addiction. SD (8.52) indicates variability addiction levels. The results indicated that there was an extremely strong positive correlation ($r = 0.99$) between social networking and sleep disturbance. The results of this study had important implication for parents, educators. Future studies should aim to address the limitations of the present study.

CONCLUSION

This research aimed to identify the potential factors influencing this association and to investigate the relationship between social networking addictions and sleep disturbance among adolescents based on a correlational analysis. This study suggested positive correlation between social networking addiction and sleep disturbance. In summary, hypothesis of the present study was proved.

Limitations

1. This study did not include gender difference.
2. The study only focused on adolescents as the sample population.
3. The present study did not specify particular social networking sites.
4. In this study was only use convenience sampling method.

Implication

1. A short film program titled The Social Dilemma will be developed as an intervention to educate youth about the influence of social networking on their lives

Suggestions

1. Examining the impact of social networking addiction on sleep disturbance among diverse populations, such as younger children and older (e.g. 8-10 years old, 65+ years old)
2. Examine the relationship between online violence and mental health outcomes

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